

Title (en)

DRIVING FORCE ADJUSTMENT APPARATUS

Title (de)

ANTRIEBSKRAFTANPASSUNGSVORRICHTUNG

Title (fr)

APPAREIL DE RÉGLAGE DE LA FORCE D'ENTRAÎNEMENT

Publication

EP 3459772 B1 20200415 (EN)

Application

EP 18191335 A 20180828

Priority

JP 2017168707 A 20170901

Abstract (en)

[origin: EP3459772A1] A differential apparatus (1) including a differential gear (18), supported by a differential case (17), and a pair of left and right outputting shafts (13,14) is interposed between a left shaft (13) and a right shaft (14) of a vehicle, and a motor (2) is coupled to the differential apparatus (1). A reverse rotating mechanism (5) is provided which generates rotation being reverse to rotation of a first outputting shaft being one of the outputting shafts (13,14) of the differential apparatus (1) and having a same rotational speed as the rotation of the first outputting shaft (13). A changeover mechanism (6) for controlling a power transmission state is interposed between the left shaft (3) coupled to the first outputting shaft (13) and the reverse rotating mechanism (5). The changeover mechanism (6) has a first state in which the left shaft (3) is coupled to the first outputting shaft (13), a second state in which the left shaft (3) is not coupled to the differential apparatus (1) and the reverse rotating mechanism (5), and a third state in which the left shaft (3) is coupled to the reverse rotating mechanism (5). Accordingly, a driving function of the left and right wheels (L,R) and an adjusting function of distribution of a driving force can be compatibly achieved with a simple configuration.

IPC 8 full level

B60K 1/00 (2006.01); **B60K 23/04** (2006.01); **B60K 23/08** (2006.01)

CPC (source: CN EP US)

B60K 1/00 (2013.01 - CN EP US); **B60K 17/165** (2013.01 - CN); **B60K 23/04** (2013.01 - EP US); **B60K 23/0808** (2013.01 - EP US);
F16H 1/22 (2013.01 - CN); **F16H 1/36** (2013.01 - CN); **F16H 48/10** (2013.01 - CN); **F16H 48/12** (2013.01 - CN); **F16H 48/36** (2013.01 - US);
F16H 48/38 (2013.01 - CN); **B60K 2023/043** (2013.01 - EP US); **F16H 2048/364** (2013.01 - US); **F16H 2048/368** (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3459772 A1 20190327; EP 3459772 B1 20200415; CN 109421501 A 20190305; CN 109421501 B 20210720; JP 2019044866 A 20190322;
JP 7035385 B2 20220315; US 10550923 B2 20200204; US 2019072169 A1 20190307

DOCDB simple family (application)

EP 18191335 A 20180828; CN 201811001355 A 20180830; JP 2017168707 A 20170901; US 201816117876 A 20180830